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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,383	11/26/2003	Kunihisa Obi	009523-0307056	6013

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PILLSBURY WINTHROP SHAW PITTMAN, LLP  
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MCLEAN, VA 22102

EXAMINER
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MAY, ROBERT J

ART UNIT	PAPER NUMBER
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2885

MAIL DATE	DELIVERY MODE
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05/07/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/721,383

Applicant(s)

OBI, KUNIHISA

Examiner

Robert May

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-4, 6 and 7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-4, 6 and 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 2, 2007 has been entered.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohara (6,883,938) in view of Itoi.

Kohara discloses in Figure 1, an illumination apparatus for an optical instrument (studio lighting systems Col 1, lines 5-7, which is read to include a projector as established as being an optical instrument on page one of the specification) comprising a illumination means 8 for outputting light, an optical element 14 positioned on the light path of the illuminating light outputted from the illumination means and also discloses that the optical element may contain organic and inorganic material (organic and

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inorganic fillers for enhancing heat resistance (Col 18, lines 50-67-Col 19, lines 1-16, which can be used alone or in combinations of two or more types Col 19, lines 46-47). Kohara also discloses the optical element (including a organic component) having a glass temperature in excess of 150 degrees C (90-300 deg C, Col 15, lines 7-11).

Kohara fails to disclose the organic/inorganic components as being mixed in complex with each other.

Itoi discloses inorganic and organic components mixed in complex with each other (organic peroxide cross linking agent and an inorganic fine powder) to improve scuff resistance (Abstract- Purpose). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the optical element of Kohara with the organic and inorganic components mixed in complex with each other to improve scuff resistance as taught by Itoi.

Regarding Claim 7, Kohara fails to disclose the composite materials claimed.

Itoi discloses the organic/inorganic composite material made up of an IPN structure wherein the organic components and inorganic components are interwoven and interpenetrated into each other by the mixing step which effects the polymerization of the material which means the mixture takes place on a molecular level for enhancing the scuff resistance of a lens (Abstract). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the composite material Ohsato with the IPN structure mixed at a molecular level of Itoi for enhancing the scuff resistance of the lens.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kohara and Itoi as applied to claim 2 above, and further in view of Fujimoto. Kohara fails to disclose the illumination system as being used for a microscope, however Fujimoto discloses an illumination system being used for a microscope (abstract) for illuminating the viewing field. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the illumination apparatus of Kohara for a microscope for illuminating the viewing field.

Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohara in view of Itoi and Fukuzawa (JP 2002114945A).

Kohara fails to disclose the organic/inorganic components as being mixed in complex with each other.

Itoi discloses inorganic and organic components mixed in complex with each other (organic peroxide cross linking agent and an inorganic fine powder) to improve scuff resistance (Abstract- Purpose). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the optical element of Kohara with the organic and inorganic components mixed in complex with each other to improve scuff resistance as taught by Itoi.

Kohara fails to disclose the composite material containing one of the components represented by the formula:  $M1(OR_4)_n$ .

Fukuzawa discloses a composite material comprising an inorganic and an organic material comprising a material represented by an equivalent formula

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(M1(OR2)m) for providing a coating composition in order to form a light diffusion film that coats a surface. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the optical element of Kohara with the organic/inorganic composite material of Fukuzawa for forming a light diffusion film on the optical element of Kohara.

Regarding Claim 4, Kohara also discloses the optical element (including a organic component) having a glass temperature in excess of 150 degrees C (90-300 deg C, Col 15, lines 7-11).

### ***Response to Arguments***

Applicant's arguments with respect to claims 2 and 3 have been considered but are moot in view of the new ground of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert May whose telephone number is (571) 272-5919. The examiner can normally be reached between 9 am– 5:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jong (James) Lee can be reached on (571) 272-7044. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300 for all communications.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval PAIR system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RM

5/1/07



RENEE LUEBKE  
PRIMARY EXAMINER